ABSTRACT

An asynchronous transfer mode (ATM) digital subscriber line (DSL) head-end network is disclosed which includes a network control system, which manages call traffic through the head-end network by assigning traffic to voice channels based on available time slots from a telephone company. A plurality of customer premise equipment (CPE) units provide customer line terminations with telephone service. The CPE units are coupled to a multiplexer. The network control system has an assignment mechanism which concentrates telecommunications traffic between the multiplexer and an asynchronous transfer mode (ATM) switch on the channels to compensate for a number of customer line terminations exceeding a number of voice channels on links to the telephone company.

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